

Natural Heritage & Endangered Species Program

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THREATENED SPECIES OF MASSACHUSETTS

Persius Dusky-Wing Skipper (*Erynnis persius persius*)

DESCRIPTION: The Persius Dusky-Wing Skipper is a small to medium-sized butterfly with a wingspan of 25-35 mm (1-1.4 in). It is usually dark or light brown both above and below. The forewings are patterned with small but conspicuous white spots near the top edge. This pattern is obscured on the male by white hair-like scales on the wings giving the male a softer appearance. The hindwing of this species is plain with rows of understated black markings and rows of pale brown or buff spots. The underside of the hindwing is similar but less strongly marked. Females are lighter and more marked.



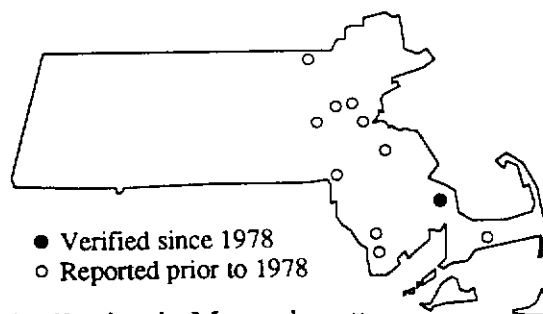
SIMILAR SPECIES IN MASSACHUSETTS: There are nine species of Dusky-Wing Skippers (genus *Erynnis*) that occur in Massachusetts. They are most easily distinguished from one another by the pattern of white spots on their forewings. The Persius Dusky Wing is very similar to the Wild Indigo Dusky-Wing (*E. baptisiae*) and the Columbine Dusky-Wing (*E. lucilius*). *E. persius persius* can be separated reliably from *E. baptisiae* only by genitalia or specialized wing hairs. In either case this can be determined only from a specimen under magnification. On average *E. baptisiae* is perhaps larger, usually browner especially on the outer half of the forewing. These characteristics, however, are not reliable. The Persius Dusky-Wing Skipper can be distinguished from the Columbine Dusky-Wing by its larger size and its pale areas with hair-like scales. The pale patch along the forewing is not as brown as on the Wild Indigo Dusky-Wing

Klots, Alexander B. 1951. A Field Guide to the Butterflies of North America, East of the Great Plains. Houghton Mifflin Co., Boston.

RANGE: The Persius Dusky-Wing Skipper is one of the most frequently state-listed butterflies. It has become exceedingly rare within most of its range and is considered to be declining throughout the northeastern United States. *E. persius persius* occurs mainly in isolated pockets from northern New England, Quebec, and the Great Lakes states west across Canada to British Columbia and north to Alaska. In the United States, it ranges south in the Appalachians to Virginia. Other subspecies of *E. persius* occur in the West to Arizona, New Mexico, California, and Alaska.



Documented Range in USA of
Persius Dusky-Wing Skipper
(*E. persius persius*)



● Verified since 1978
○ Reported prior to 1978
Distribution in Massachusetts

HABITAT IN MASSACHUSETTS: The Persius Dusky-Wing is supposedly found in marshes or seeps with small willows, but usually in pitch pine/scrub oak barrens, powerline clearings, or open sandy fields and boggy places near woods. Because this species is adapted to early successional communities, powerline construction has actually provided the species, and most other rare upland butterflies, with some additional acceptable habitat. There are several areas in the state with apparently suitable habitat for the Skipper but in which no occurrences of the butterfly have been recorded. Current populations in New England are in pitch pine barrens or along powerlines through them.

LIFECYCLE/BEHAVIOR: Female Persius Dusky-Wings lay their eggs singly on the underside of leaves from a host foodplants. The eggs hatch in one to two weeks changing in color from yellow-green to pink. The larvae are light-green with tiny white bumps, each of which has a single white hair. The head may be red, yellow or orange. The Persius Dusky-Wing remains in the larval stage from June until the following April. In the early summer, while living in a nest made of rolled leaves, the caterpillar feeds on wild lupine (*Lupinus perennis*) and wild indigo (*Baptisia tinctoria*) and in July moves into fallen leaves. Larvae overwinter among dead leaves until pupation in April. In the East there is a single spring flight in May and early June. Males usually perch on the ground during most daylight hours. Females oviposit (lay eggs) near midday. This species is single brooded everywhere except in parts of Oregon and California where there are at least two broods.

POPULATION STATUS: The Persius Dusky-Wing Skipper is currently listed as a "Threatened Species" in Massachusetts. Although it was known historically from Boston vicinity and Cape Cod sites, it has become extirpated in the Boston area. The only documented and verified populations currently known in Massachusetts are in the Myles Standish State Forest in Plymouth. The decline of this butterfly is attributed to larval mortality from insecticides intended for gypsy moths*, the mowing of food plants too early in the summer, and loss of habitat from fire suppression. However, while fire suppression destroys the butterfly's habitat, a complete burning of the habitat area is also devastating to the Persius Dusky-Wing's population.

MANAGEMENT RECOMMENDATIONS: In order to preserve the existing populations of Persius Dusky-Wing Skipper the following recommendations should be followed:

- No spraying or application of insecticides should be done in the habitat area;
 - No single area should be burned more than once in 10 years and, in the case of pitch pine/scrub oak barrens, no more than once every twenty or more years;
 - No mowing foodplants such as wild indigo (*Baptisia tinctoria*) until after July, although Fall mowing helps maintain habitat.
- Each area to be burned or mowed should be subdivided into at least three units for treatments, and no entire area should receive treatment in any one year. No unit should be burned more often than every sixth year.

* Specimens in older collections suggest this species was much less rare in Massachusetts and Rhode Island in the 1800's to the 1940's than from the late 1950's to the present. This strongly suggests that this species was one of several victims of the massive DDT spraying for gypsy moths in the late 1950's.